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# State of California AIR RESOURCES BOARD

#### **EXECUTIVE ORDER D-488-4**

Relating to Exemptions Under Section 27156 of the Vehicle Code

Magnuson Products, Inc. Radix Supercharger Kit

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Section 39515 and Section 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the installation of the Radix Supercharger Kit manufactured and marketed by Magnuson Products, Inc. of 3172 Bunsen Avenue, Unit K, Ventura, CA 93003, has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for the 4.8L, 5.3L, and 6.0L General Motors vehicles listed in Exhibit A.

The Radix Supercharger Kit includes the following main components: Eaton supercharger, intake manifold plenum, larger fuel injectors, air intake box and filter, air-to-water intercooler, and new fuel and ignition timing map calibrations. The stock fuel injectors are replaced while still maintaining the air-fuel ratio close to stoichiometric using the new fuel and timing calibrations. The stock fuel pressure regulator is retained, but the stock fuel pump is complemented with a fuel pump voltage booster. The throttle body is moved to the supercharger inlet. All other emission-related components are in the stock location relative to the throttle body. The supercharger pulley specifications range between 3.0" to 3.7" depending on the engine displacement for which the kit is installed. All crankshaft pulleys are stock and maximum boost is limited to 7 psi.

This Executive Order shall not apply to any Radix Supercharger Kit advertised, offered for sale, sold with, or installed on a new motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

This Executive Order is valid provided that the installation instructions for the Radix Supercharger Kit will not recommend tuning the vehicle to specifications different from those of the vehicle manufacturer.

Changes made to the design or operating conditions of the devices, as exempted by the Air Resources Board (ARB), that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of these devices using any identification other than that shown in this Executive Order or marketing of this device for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the ARB.

This Executive Order does not constitute any opinion as to the effect that the use of these devices may have on any warranty either expressed or implied by the vehicle manufacturer.

This exemption is issued based on submitted emissions test data from an independent laboratory on a 2003 model year General Motors Silverado 2WD vehicle (Test Group 3GMXT05.3176) certified to the Ultra Low Emission Vehicle (ULEV) and Supplemental Federal Test Procedure (SFTP) standards:

## Federal Test Procedure:

Standards (g/mi) Device (g/mi) with df's applied	NMOG 0.100 0.074	<u>CO</u> 4.4 1.7	NOX 0.4 0.2	HCHO 0.009 0.002
SFTP (US06 Cycle):				
Standards (g/mi) Device (g/mi) SFTP (SC03 Alternative Cycle):	NMHC+NOX 0.40 0.08		<u>CO</u> 10.5 3.6	
Standards (g/mi) Device (g/mi)	NMHC+NOX 0.31 0.06		CO 3.5 0.1	

Test results showed that the Radix Supercharger Kit when installed on the vehicle did not cause exhaust emissions to exceed the applicable emission standards during the Cold Start CVS-75 Federal Test Procedure or SFTP cycles. This Executive Order is also based on the On-Board Diagnostic II (OBD II) testing conducted on the same test vehicle. Although the evaporative system readiness indicator failed to set during initial tests, no diagnostic trouble codes were logged during testing. In addition, further OBD II tests performed after the replacement of the vehicle's evaporative canister showed that the evaporative system readiness indicator set both before and after the installation of the supercharger kit. Therefore, the Radix Supercharger Kit

when installed on the test vehicle did not affect the vehicle's ability to perform its OBD II monitoring. However, the ARB reserves the right to monitor this issue and conduct additional OBD II system tests in the future. If such test results demonstrate that the Radix Supercharger Kit is adversely affecting emissions or the OBD II system, this Executive Order shall be effectively rescinded as of the date the test results are validated.

In addition, the ARB reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of Title 13, California Code of Regulations, Section 2222, et seq.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE RADIX SUPERCHARGER KIT.

No claims of any kind, such as "Approved by the Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a ten day written notice of intention to revoke the order, in which period the holder of the order may request in writing a hearing to contest the proposed revocation. If a hearing is requested, it shall be held within ten days of receipt of the request and the order may not be revoked until a determination is made after the hearing that grounds for revocation exist.

Executed at El Monte, California, this 28th day of July 2003.

Allen Lyons, Chief

Mobile Source Operations Division

#### Exhibit A

## (E.O.# D-488-4)

	<u> </u>		S/C SYST	EM PART NUMBER	s	C SYSTE	M DESCRIPTION	APPLICATION	1
		Associate 1							ED RELOW
Column						en Savingare a service			
Continue					RADIX H2,	SILVER			
Vest   Marke   Model   Model   Model   Engine   Publy Dis.   Publy PN   Add Early Model Rior 31-12-00-097   Tuner PN					RADIX H2, I	POLISH			
Total   Mark   Model   Model   Model   Signip   Puller Dis.   Puller D		(A) (A)			RADIX FLE	K FUEL, SI	LVER (NO INJ.W/FUELREG)	ANY GM LISTED BELOW WITH	VIN#8=Z***
1999   Chewrolet CK			701	-12-60-017	RADIX FLE	X FUEL. PO	DLISH (NO INJ. WFUELREG)	ANY GM LISTED BELOW WITH	VIN#8=Z
1999   Chewrolet CK									
1999   GMC   CK   Serra 1500/2500   4.8   LR4   3.7   58-90-96-039   yes   88-95-3-001   yes   88-95-3-0									
1999 GMC C/K   Serra 1500/2500   4.8 - LR4   3.7   58-90-96-037   yes   88-85-3-001   2000 Chevrolet C/K   Silverado 1500/2500   4.8 - LR4   3.7   58-90-96-039   yes   88-85-3-001   38-85-3-003   38-85-3-001   38-85-3-003   38-85-3-003   38-85-3-003   38-85-3-003   38-85-3-003   38-85-3-003	1000	- One word	- Citt	Oliverado 1000/2000				•	
S3 - LM7   3.4   S8-00-6-039   yes   S8-85-53-001	4000	0110	0.07						
2000   Chevrolet   C/K   Silvarado 1500/2500   4.8 - LR4   3.7   38-90-96-037   yes   88-85-3-007   yes	1999	GMC	C/K	SIепа 1500/2500				•	
S.3 - LM7   3.4   \$8-90-06-039   yes   \$8-95-50-001	19912		filt wi			in ili			W. 22428412
2000   Chevrolet   C/K   Tahoe   4.3 - LR4   3.7   \$8-90-06-131   yes   \$8-85-53-001   yes   \$8-85-53-001   \$5.3 - LM7   3.4   \$8-90-06-337   yes   \$8-85-53-001   \$6.0 - LO4   3.1   \$8-90-06-339   yes   \$8-85-53-001   \$8-85-53-001   \$6.0 - LO4   3.1   \$8-90-06-339   yes   \$8-85-53-001   \$	2000	Chevrolet	C/K	Silverado 1500/2500				•	
2000   Chevrolet   C/K								· ·	
S3 - LM7   3.4   \$9-90-60-33   yes   \$8-85-53-001								,,,,,,	00-00-00-001
2000   Chevrolet C/K   Suburban 1500/2500   4.8 - LR4   3.7   \$8-90-90-937   yes   \$8-85-53-907   yes   \$8-85-53	2000	Chevrolet	C/K	Tahoe					
\$3.1-IM7 3.4 \$9.90.06.039 yes \$8.85.53.001  2000 GMC C/K Sierra 1500/2500 4.8 - IR4 3.7 \$8.90.06.037 yes \$8.85.53.001  2000 GMC C/K Sierra 1500/2500 4.8 - IR4 3.7 \$8.90.06.037 yes \$8.85.53.001  2000 GMC C/K Yukon 4.5 - IR4 3.7 \$8.90.06.037 yes \$8.85.53.001  2000 GMC C/K Yukon XL 1500/2500 4.8 - IR4 3.7 \$8.90.06.037 yes \$8.85.53.001  2000 GMC C/K Yukon XL 1500/2500 4.8 - IR4 3.7 \$8.90.06.037 yes \$8.85.53.001  2000 GMC C/K Yukon XL 1500/2500 4.8 - IR4 3.7 \$8.90.06.037 yes \$8.85.53.001  2000 GMC C/K Denall 5.0 - I.O4 3.1 \$8.90.06.037 yes \$8.85.53.001  2000 GMC C/K Denall 5.0 - I.O4 3.1 \$8.90.06.131 yes \$8.85.53.001  2000 GMC C/K Denall 5.0 - I.O4 3.1 \$8.90.06.131 yes \$8.85.53.001  2000 GMC C/K Denall 5.0 - I.O4 3.1 \$8.90.06.037 yes \$8.85.53.001  2000 GMC C/K Denall 5.0 - I.O4 3.1 \$8.90.06.031 yes \$8.85.53.001  2001 Chevrolet C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.033 yes \$8.85.53.001  2001 Chevrolet C/K Suburban 1500/2500 4.8 - I.R4 3.7 \$8.90.06.031 yes \$8.85.53.003  2001 Chevrolet C/K Suburban 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.039 yes \$8.85.53.003  2001 GMC C/K Silverado 1500/2500 4.8 - I.R4 3.7 \$8.90.06.037 yes \$8.85.53.003  2001 GMC C/K Silverado 150	Щ.				5.3 - LM/	3.4	<del>20-90-05-039</del>	yes	88-85-53-001
6.0 - LQ4 3.1 58-90-96-131 yes 88-85-3-001  2000 GMC C/K Sierra 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-001  2000 GMC C/K Yukon 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-001  2000 GMC C/K Yukon XL 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-001  2000 GMC C/K Yukon XL 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-001  2000 GMC C/K Yukon XL 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-001  2000 GMC C/K Denali 5.0 - LQ4 3.1 58-90-96-037 yes 88-85-3-001  2000 GMC C/K Denali 5.0 - LQ4 3.1 58-90-96-037 yes 88-85-3-001  2000 GMC C/K Denali 5.0 - LQ4 3.1 58-90-96-037 yes 88-85-3-001  2001 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-001  2001 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-001  2001 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-001  2001 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-001  2001 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Yukon 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Yukon 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Yukon 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-96-037 yes 88-85-3-003  2001 GMC C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-	2000	Chevrolet	C/K	Suburban 1500/2500			58-90-06-037	yes	88-85-53-001
2000 GMC C/K Sierra 1500/2500 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-001 yes 88-85-53-003									
2000 GMC C/K   Yukon XL 1500/2500   4.8 - LR4   3.7   58-90-66-037   yes   88-85-33-001   3.4   58-90-66-039   yes   38-85-33-001   yes   38-85-33-003   y	<u> </u>			**************************************	0.0 - LQ4	3.1	36-90-00-131	yes	88-85-53-001
2000 GMC C/K	2000	GMC	C/K	Sierra 1500/2500				yes	88-85-53-001
2000 GMC C/K								-	
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-001	L				0.0 - EQ4	3.1	30-30-00-131	yes	88-85-53-001
2000 GMC C/K   Yukon XL 1500/2500   4.8 - LR4   3.7   \$8-90-06-037   yes   88-85-53-001   yes   88-85-53-003   y	2000	GMC	C/K	Yukon			Charles a communication of the contract of	yes	88-85-53-001
Sacratic	_				5.3 - LM7	3.4	58-90-06-039	yes	88-85-53-001
S.3 - LM7   3.4   58-90-06-039   yes   88-85-33-001	000ء ،	GMC	C/K	Yukon XL 1500/2500	4.8 - LR4	3.7	58-90-06-037	ves	88-85-53-001
2000 GMC C/K   Denalí   6.0 - LQ4   3.1   58-90-06-131   yes   88-85-53-001							58-90-06-039	-	88-85-53-001
2000   Cadillac   Escalade   6.0 - LQ9   3.3   58-90-06-033   yes   88-85-53-001	L				6.0 - LQ4	3.1	58-90-06-131	yes	88-85-53-001
2001   Chevrolet   C/K   Silverado   1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   yes   88-85-53-003   2001   Chevrolet   C/K   Tahoe   4.8 - LR4   3.7   58-90-06-039   yes   88-85-53-003   yes   88-85-53-003   2001   Chevrolet   C/K   Suburban   1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   2001   Chevrolet   C/K   Suburban   1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   yes   88-85-53-003   3.3 - LM7   3.4   58-90-06-039   yes   88-85-53-003   yes   88-85-53-003   2001   GMC   C/K   Sierra   1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   yes   88-85-53-003   3.5 - LM7   3.4   58-90-06-037   yes   88-85-53-003   2.5 - LM7   3.4   58-90-06-039   yes   88-85-53-003   3.5 - LM7   3.4   58-90-06-037   yes   38-85-53-003   3.5 - LM7   3.4   58-90-06-037   yes   38-85-53-003   3.5 - LM7   3.4   58-90-06-037   yes   38-85-53	2000	GMC	C/K	Denali	6.0 - LQ4	3.1	58-90-06-131	yes	88-85-53-001
2001   Chevrolet   C/K   Silverado   1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   yes   88-85-53-003   2001   Chevrolet   C/K   Tahoe   4.8 - LR4   3.7   58-90-06-039   yes   88-85-53-003   yes   88-85-53-003   2001   Chevrolet   C/K   Suburban   1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   2001   Chevrolet   C/K   Suburban   1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   yes   88-85-53-003   3.3 - LM7   3.4   58-90-06-039   yes   88-85-53-003   yes   88-85-53-003   2001   GMC   C/K   Sierra   1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   yes   88-85-53-003   3.5 - LM7   3.4   58-90-06-037   yes   88-85-53-003   2.5 - LM7   3.4   58-90-06-039   yes   88-85-53-003   3.5 - LM7   3.4   58-90-06-037   yes   38-85-53-003   3.5 - LM7   3.4   58-90-06-037   yes   38-85-53-003   3.5 - LM7   3.4   58-90-06-037   yes   38-85-53	0000	A 111							
2001   Chevrolet   C/K   Silverado   1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-30-03   ye	2000	Cadillac	. Sin . Calv		6.0 - LQ9	3.3	58-90-06-033	yes	88-85-53-001
6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003  2001 Chevrolet C/K Tahoe 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  2001 Chevrolet C/K Suburban 1500/2500 4.8 - LR4 3.7 58-90-06-039 yes 88-85-53-003  2001 GMC C/K Sierra 1500/2500 4.8 - LR4 3.7 58-90-06-039 yes 88-85-53-003  2001 GMC C/K Sierra 1500/2500 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  2001 GMC C/K Sierra 1500/2500 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  2001 GMC C/K Yukon 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  2001 GMC C/K Yukon 4.8 - LR4 3.7 58-90-06-031 yes 88-85-53-003  2001 GMC C/K Yukon 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  2001 GMC C/K Yukon 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  2001 GMC C/K Yukon 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  2001 GMC C/K Yukon XL 1500/2500 4.8 - LR4 3.7 58-90-06-039 yes 88-85-53-003  2001 GMC C/K Yukon XL 1500/2500 4.8 - LR4 3.7 58-90-06-039 yes 88-85-53-003  2001 GMC C/K Denali 6.0 - LQ4 3.1 58-90-06-039 yes 88-85-53-003  2001 GMC C/K Denali 6.0 - LQ4 3.1 58-90-06-031 yes 88-85-53-003  2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-033 yes 88-85-53-003  2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-039 yes 88-85-53-003	2001	Chevrolet		1 11 11 11 11 11 11 11 11 11 11 11 11 1	4.8 - LR4	3.7	58-90-06-037	yes	88-85-53-003
2001   Chevrolet   C/K   Tahoe   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   yes								•	
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003  2001 Chevrolet C/K Suburban 1500/2500 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003	L				6.0 - LQ4	3.1	58-90-06-131	yes	88-85-53-003
2001   Chevrolet   C/K   Suburban 1500/2500   4.8 - LR4   3.7   58-90-06-037   yes   88-85-53-003   yes   88-85-	2001	Chevrolet	C/K	Tahoe		3.7	58-90-06-037	yes	
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003	<u> </u>	·	<del></del>		5.3 - LM7	3.4	58-90-06-039	yes	88-85-53-003
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003	2001	Chevrolet	C/K	Suburban 1500/2500	4.8 - LR4	3.7	58-90-06-037	ves	88-85-53-003
2001 GMC C/K Sierra 1500/2500 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003 6.0 - LQ4 3.1 58-90-06-031 yes 88-85-53-003 yes 88-		. •	•		5.3 - LM7	3.4	58-90-06-039	<u>-</u>	88-85-53-003
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003	Щ.				6.0 - LQ4	3.1	58-90-06-131	yes	88-85-53-003
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003	2001	GMC	C/K	Sierra 1500/2500	4.8 - LR4	3.7	58-90-06-037	ves	88-85-53-003
2001 GMC C/K Yukon 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  2001 GMC C/K Yukon XL 1500/2500 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  2001 GMC C/K Yukon XL 1500/2500 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003  5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003  6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003  2001 GMC C/K Denali 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003  2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003  2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003						3.4	58-90-06-039	•	
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003  2001 GMC C/K Yukon XL 1500/2500 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003 5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003  2001 GMC C/K Denali 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003  2001 Cadillac Escalade 6.0-LQ9 3.3 58-90-06-033 yes 88-85-53-003  2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003 5.3 - LM7 3.4 58-90-06-039 no 88-85-53-003	L				6.0 - LQ4	3.1	58-90-06-131	yes	88-85-53-003
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003  2001 GMC C/K Yukon XL 1500/2500 4.8 - LR4 3.7 58-90-06-037 yes 88-85-53-003 5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003  2001 GMC C/K Denali 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003  2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003 2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-039 no 88-85-53-003	2001	GMC	C/K	Yukon	4.8 - LR4	3.7	58-90-06-037	ves	88-85-53-003
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003    2001 GMC C/K Denali 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003     2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003      2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003      2003 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003      2004 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003	<u> </u>						58-90-06-039		
5.3 - LM7 3.4 58-90-06-039 yes 88-85-53-003 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003    2001 GMC C/K Denali 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003     2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003      2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003      2003 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003      2004 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003	2001	GMC	C/K	Yukon XI 1500/2500	48-104	3.7	58,00,06,027	100	90 95 52 002
6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003    2001 GMC C/K Denali 6.0 - LQ4 3.1 58-90-06-131 yes 88-85-53-003     3.1	1	50		1 WHO I / 1 1000/2000				· ·	
2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003 5.3 - LM7 3.4 58-90-06-039 no 88-85-53-003					6.0 <b>-</b> LQ4	3.1	58-90-06-131		
2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003 5.3 - LM7 3.4 58-90-06-039 no 88-85-53-003	2001	GMC	C/K	Denali	60-104	31	58-Q0-06-131	Voc	88_85_52_002
2002 Chevrolet C/K Silverado 1500/2500 4.8 - LR4 3.7 58-90-06-037 no 88-85-53-003 5.3 - LM7 3.4 58-90-06-039 no 88-85-53-003			-//\	DOI IGI	0.0 - EQ-	J. 1	55-50-05-151	yes	JU-UJ-JJ-UUJ
5.3 - LM7 3.4 <b>58-90-06-039</b> no <b>88-85-53-003</b>	01ر	Cadillac		Escalade	6.0-LQ9	3.3	58-90-06-033	yes	88-85-53-003
5.3 - LM7 3.4 <b>58-90-06-039</b> no <b>88-85-53-003</b>	2002	Chevrolet	C/K	Silverado 1500/2500	48.IR4	3.7	58-QQ-06-037		88 85 52 002
6.0 - LQ4 3.1 58-90-06-131 ves 88-85-53-003				J 5/845 1000/2000					
	L				6.0 - LQ4	3.1	58-90-06-131	yes	88-85-53-003

### Exhibit A

## (E.O.# D-488-4)

<u>ar</u>	Make	Model	Model	Engine	Pulley Dia.	Pulley P/N	Add Early Model Kit? 31-12-00-007	Tuner P/N
12002	Chevrolet	C/K	Tahoe	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-003
<u> </u>				5.3 - LM7	3.4	58-90-06-039	no	88-85-53-003
2002	Chevrolet	C/K	Suburban 1500/2500	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-003
				5.3 - LM7	3.4	58-90-06-039	no	88-85-53-003
				6.0 - LQ4	3.1	58-90-06-131	yes	88-85-53-003
2002	Chevrolet	C/K	Avalanche 1500	5.3 - LM7	3.4	58-90-06-039	no	88-85-53-003
2002	GMC	C/K	Sierra 1500/2500	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-003
1-002	Cino	0,11	0.0112 1000/2000	5.3 - LM7	3.4	58-90-06-039	no	88-85-53-003
				6.0 - LQ4	3.1	58-90-06-131	yes	88-85-53-003
2002	GMC	C/K	Yukon	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-003
2002	GIVIO	On	TUROTT	5.3 - LM7	3.4	58-90-06-039	no	88-85-53-003
0000	0110	0.04		40 104				
2002	GMC	C/K	Yukon XL 1500/2500	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-003
1				5.3 - LM7 6.0 - LQ4	3.4 3.1	58-90-06-039 58-90-06-131	no yes	88-85-53-003 88-85-53-003
2002	GMC	C/K	Denali	4.8 - LR4 5.3 - LM7	3.7 3.4	58-90-06-037	no	88-85-53-003
				6.0 - LQ4	3.4	58-90-06-039 58-90-06-131	no yes	88-85-53-003 88-85-53-003
12222								
2002	Cadillac		Escalade	6.0 - LQ9	3.3	58-90-06-033	yes	88-85-53-003
2002	Cadillac	and Thereigh	Escalade EXT	6.0 - LQ9	3.3	58-90-06-033	yes	88-85-53-003
2003	Chevrolet	C/K	Silverado 1500/2500 and HD Series	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-002
1		•		5.3 - LM7	3.4	58-90-06-039	no	88-85-53-002
				6.0 - LQ4	3.1	58-90-06-131	по	88-85-53-002
J03	Chevrolet	C/K	Tahoe	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-002
	G.1.G.1.G.1.G.1			5.3 - LM7	3.4	58-90-06-039	no	88-85-53-002
10000	Oh1-4	0.07	0.111500/0500	40 104				
2003	Chevrolet	C/K	Suburban 1500/2500	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-002
İ				5.3 - LM7 6.0 - LQ4	3.4 3.1	58-90-06-039 58-90-06-131	no no	88-85-53-002 88-85-53-002
2003	Chevrolet	C/K	Avalanche 1500/2500	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-002
				5.3 - LM7	3.4	58-90-06-039	no	88-85-53-002
L				6.0 - LQ4	3.1	58-90-06-131	no	88-85-53-002
2003	Chevrolet		SSR	5.3 - LM7	3.4	58-90-06-039	no	88-85-53-002
2003	Chevrolet		Trailblazer XL	5.3 - LM7	3.4	58-90-06-039	no	88-85-53-002
2000	Oneviolet		Transazer AL	0.0 - LIVII	J.7	30-30-00-039	110	00-03-03-00E
2003	GMC	C/K	Sierra 1500/2500 and HD Series	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-002
1				5.3 - LM7	3.4	58-90-06-039	no	88-85-53-002
<u> </u>				6.0 - LQ4	3.1	58-90-06-131	no	88-85-53-002
2003	GMC	C/K	Yukon	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-002
				5.3 - LM7	3.4	58-90-06-039	no	88-85-53-002
2003	GMC	C/K	Yukon XL 1500/2500	4.8 - LR4	3.7	58-90-06-037	no	88-85-53-002
1				5.3 - LM7	3.4	58-90-06-039	no	88-85-53-002
				6.0 <b>-</b> LQ4	3.1	58-90-06-131	no	88-85-53-002
2003	GMC	C/K	Envoy XL	5.3 - LM7	3.4	58-90-06-039	no	88-85-53-002
2003	GMC	C/K	Denali	6.0 - LQ4	3.1	58-90-06-131	по	88-85-53-002
2003	Cadillac		Escalade	6.0 - LQ9	3.3	58-90-06-033	20	88-85-53-002
- 2003	Gaunac		Localdue	0.0 - LQ9	J.J	30-30-00-033	no	30-03-03-002
03ر	Cadillac		Escalade EXT	6.0 - LQ9	3.3	58-90-06-033	no	88-85-53-002
2003	Cadillac		Escalade ESV	6.0 - LQ9	3.3	58-90-06-033	no	88-85-53-002
2003	Hummer	<del></del>	H2	6.0 - LQ4	3.1	Don't Add to S/O	no	88-85-53-002
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